



Environmental Consulting & Technology, Inc.

July 1, 2003
010344-0300

Mr. Wesley B. Crum, Chief
Coastal Programs Section
U.S. Environmental Protection Agency Region 4
61 Forsyth Street, SW
Atlanta, Georgia 30303

Re: Permit No. OD 03-01
Toxicity Test Report Submittal

Dear Mr. Crum:

In accordance with Specific Condition no. 21 of the above-referenced permit, please find enclosed two copies of the Toxicity Test Report prepared by Hydrosphere Research of Gainesville, Florida. The water sample subjected to the 96-hour acute and 48-hour chronic test procedures described in the Hydrosphere report was collected on May 22, 2003 by Mr. Robert L. Harrison, Jr. of my staff in accordance with grab sample collection procedures defined in the Environmental Consulting & Technology, Inc. (ECT) comprehensive quality assurance plan that has been reviewed and approved by the Florida Department of Environmental Protection (FDEP). The water sample was collected downstream of the lime precipitation, aeration, sedimentation, and pH adjustment (acidulation) water treatment processes, all of which were operating normally at the time of sample collection, but prior to commingling with other water being discharged on May 22nd (i.e., reverse osmosis-treated water). Thus, the water sample collected is representative of the water proposed to be dispersed under the permit. Field measurements conducted at the time of sample collection were as follows:

- Temperature = 24.31°C
- Specific Conductance = 7,456 μ S/cm
- Dissolved Oxygen = 5.91 mg/L
- pH = 5.95
- Ammonia (total) = 18 mg/L

1408 North Westshore
Blvd., Suite 115
Tampa, FL
33607

(813)
289-9338

FAX (813)
289-9388

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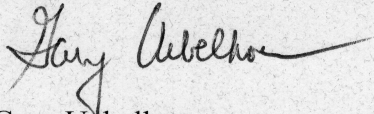
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We would appreciate your review of the report and decision as to whether the enclosed report satisfies the requirements of Specific Condition no. 21 of the permit. Should you have any questions about the test procedures or results, Mr. Coram of FDEP can arrange a conference call between responsible Hydrosphere and ECT personnel at your convenience.

Sincerely,

ENVIRONMENTAL CONSULTING & TECHNOLOGY, INC.



Gary Uebelhoer
Vice President

GU/dtm

Enclosure

cc: (all with enclosure)
Louis Timchak
Phil Coram
Sam Zamani
Nadim Fuleihan
Bruce Scott

Synopsis of Bioassays for ECT - Piney Point

Personnel at ECT collected one grab sample on May 22, 2003 from Piney Point, Manatee County, Florida. The aquatic toxicology laboratory of Hydrosphere Research in Gainesville, Florida received this sample on May 23, 2003 in good condition and initiated bioassays the same day.

Using these samples, two 96-hour acute static non-renewal definitive bioassays were conducted with the mysid shrimp (*Mysidopsis bahia*) and the inland silverside (*Menidia beryllina*). An additional 48-hour acute static non-renewal definitive bioassay was conducted with the sea urchin (*Arbacia punctulata*). Test concentrations were 0 (control), 10, 50 and 100 percents effluent for all tests.

The final survivals for both species in the 96-hour acute test are summarized in the table below:

% Effluent	<i>M. bahia</i> Final Survival (%)	<i>M. beryllina</i> Final Survival (%)
Control	100	100
10	100	100
50	100	100
100	0	100
LC50	71%	> 100%

The final fertilization for *A. punctulata* in the 48-hour acute is summarized in the table below:

% Effluent	<i>A. punctulata</i> Fertilization (%)
Control	98
10	94
50	77
100	45
IC25	55%

These bioassays were initiated within 36 hours of the sample collection time, and were acceptable tests based on control survival and test conditions.